| Index of Cl | aims |
|-------------|------|
|             |      |

| App | licatior | n/Control | No. |
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|-----|----------|-----------|-----|

10/776,556

Examiner

Daniel S. Larkin

Applicant(s)/Patent under Reexamination

**CUMMINGS ET AL.** 

Art Unit

2856

| √ | Rejected |
|---|----------|
| = | Allowed  |

| _ | (Through numeral)<br>Cancelled |
|---|--------------------------------|
| ÷ | Restricted                     |

| N | Non-Elected  |
|---|--------------|
| 1 | Interference |

| A | Appeal   |
|---|----------|
| o | Objected |

| Cla   | im   | Data            |           |  |          |  |              |              |                                     |                |  |
|-------|--|-----------------|-----------|--|----------|--|--------------|--------------|-------------------------------------|----------------|--|
| Cic   |  | Date            |           |  |          |  |              |              |                                     |                |  |
| Final | Original   | 3/30/02         |           |  |          |  |              |              |                                     |                |  |
|       | 1  | 1               |           |  |          |  |              |              |                                     | П              |  |
|       | 1<br>2<br>3<br>4<br>5  | 1               |           |  |          |  |              |              |                                     |                |  |
|       | 3  | 0               |           |  |          |  |              |              |                                     |                |  |
|       | 4  | 0               |           |  |          |  |              |              |                                     |                |  |
|       |  | 0               |           |  |          |  |              |              |                                     |                |  |
|       | 6<br>7   | 4               |           |  |          |  |              |              |                                     |                |  |
|       |  | 7               |           |  |          |  |              |              |                                     |                |  |
|       | 8  | 1               |           |  |          |  |              |              |                                     |                |  |
|       | 9<br>10  | 0               |           | <u>.                                    </u> |          |  |              |              |                                     |                |  |
|       | 10   | 0               |           |  |          |  |              |              |                                     | Щ              |  |
|       | 11   | 0               | ļ         | Щ  |          | L.,  |              |              |                                     | Ш              |  |
|       | 12   | 0               | L         | <u> </u>                                     | <u> </u> | <u> </u>   | $\Box$       |              | -                                   | Ш              |  |
|       | 13   | 0               | <u> </u>  | _  | L.       | _  | Ш            | Щ            |                                     | Щ              |  |
|       | 14   | 0               | <u> </u>  | L  | ļ        | ļ  |              |              |                                     | Щ              |  |
|       | 15   | 0               | <u> </u>  | <u> </u>                                     | <u> </u> | <u> </u>   | H            | _            | -                                   | Н              |  |
|       | 16   | 770007770000007 | <u> </u>  | $\vdash$                                     | <u> </u> | <u> </u>   |              |              | H                                   | Н              |  |
|       | 11<br>12<br>13<br>14<br>15<br>16<br>17<br>18<br>19<br>20<br>21<br>22<br>23<br>24 | ₹               | <u> </u>  | <b>L</b>                                     | ļ.       | H  |              | _            | <u> </u>                            | $\vdash\vdash$ |  |
|       | 18   | <del> </del>    | <u> </u>  | -  | -        | <u> </u>   |              |              |                                     | Н              |  |
|       | 19   | -               | ┝         | _  | H        | ⊢  | _            | _            | -                                   | Н              |  |
|       | 20   |                 | ┝         | -  | -        | -  | _            | H            |                                     | Н              |  |
|       | 22   | -               | $\vdash$  | $\vdash$                                     | _        | -  |              |              |                                     | Н              |  |
|       | 23   | -               | $\vdash$  |  | _        |  | _            | -            | _                                   | Н              |  |
|       | 24   | -               | $\vdash$  |  | -        | $\vdash$   | _            | $\vdash$     | _                                   | -              |  |
|       | 25   |                 | _         |  |          | _  |              | $\vdash$     | _                                   | Н              |  |
|       | 25<br>26<br>27   |                 |           |  |          |  |              |              |                                     |                |  |
|       | 27   |                 |           |  |          |  |              |              |                                     | П              |  |
|       | 28<br>29   |                 |           |  |          |  |              |              |                                     |                |  |
|       | 29   |                 |           |  |          |  |              |              |                                     |                |  |
|       | 30<br>31   |                 |           |  |          |  |              |              |                                     |                |  |
|       | 31   |                 |           |  |          |  |              |              |                                     |                |  |
|       | 32   | L               | L         |  |          | ļ  |              |              |                                     |                |  |
|       | 33   | _               | L         | $ldsymbol{ldsymbol{ldsymbol{ldsymbol{eta}}}$ | _        | L  | Щ            |              | $ldsymbol{ldsymbol{ldsymbol{eta}}}$ | Ш              |  |
|       | 33<br>34<br>35   |                 | L         | <u> </u>                                     | <u> </u> | <u> </u>   | <u> </u>     | L            | <u> </u>                            | Ш              |  |
|       | 35   | _               | <u> -</u> | L.   | <u> </u> | <u> </u>   | $oxed{oxed}$ | L            | <u> </u>                            | Щ              |  |
|       | 36<br>37   | <u> </u>        | <u> </u>  | <u> </u>                                     | _        | ļ  | L            | ļ            | _                                   | $\vdash$       |  |
|       | 37   | _               | <u> </u>  | ├  | _        | <u> </u>   |              |              | _                                   | <u> </u>       |  |
|       | 38   | $\vdash$        | <u> </u>  | ├  | $\vdash$ | -  | -            | <b> </b>     | $\vdash$                            | $\vdash$       |  |
|       | 39   | $\vdash$        | $\vdash$  | ├—   | ⊢        | ├-   | <u> </u>     | _            | $\vdash$                            | -              |  |
|       | 40   | $\vdash$        | ├-        | $\vdash$                                     | ┢        | $\vdash$   | <del> </del> | <del> </del> | $\vdash$                            | $\vdash$       |  |
|       | 41   | $\vdash$        | $\vdash$  | ├  | -        | $\vdash$   | $\vdash$     |              | $\vdash$                            | -              |  |
|       | 43   | $\vdash$        | $\vdash$  | $\vdash$                                     | ┈        | $\vdash$   | $\vdash$     | <del> </del> | $\vdash$                            | $\vdash$       |  |
|       | 44   | $\vdash$        | ┢         | $\vdash$                                     | $\vdash$ |  | $\vdash$     | $\vdash$     | $\vdash$                            | $\vdash$       |  |
|       | 45   |                 | -         | $\vdash$                                     | H        | <del>                                     </del> | $\vdash$     | $\vdash$     |                                     | ┢              |  |
|       | 46   |                 | $\vdash$  | $\vdash$                                     | $\vdash$ | $\vdash$   |              | $\vdash$     | $\vdash$                            | Т              |  |
|       | 47   |                 | $\vdash$  | Г  | Т        | Т  | T            |              | $\vdash$                            | П              |  |
|       | 48   | T               | Г         | T-   |          |  | Г            |              | Г                                   |                |  |
|       | 49   |                 | Г         |  | Г        | Ī  |              |              | Г                                   |                |  |
|       | 50   |                 | Г         |  | П        |  |              | Ι_           |                                     | П              |  |

| Cla          | Claim          |              |          | Date   |          |  |  |  |  |  |  |  |  |
|--------------|----------------|--------------|----------|--|----------|--|--|--|--|--|--|--|--|
|              |                |              |          |  |          |  |  |  |  |  |  |  |  |
| ā            | Original       |              |          |  |          |  |  |  |  |  |  |  |  |
| Final        | ığı            |              |          |  |          |  |  |  |  |  |  |  |  |
| -            | Õ              |              |          |  |          |  |  |  |  |  |  |  |  |
| -            | E4             | $\dashv$     | _        |  | _        | -  |  |  |  |  |  |  |  |
| -            | 51             | _            | _        |  |          | Щ  |  |  |  | _  |  |  |  |
|              | 52<br>53       |              |          |  |          |  |  |  |  |  |  |  |  |
|              | _53_           |              |          |  |          |  |  |  |  |  |  |  |  |
|              | 54             |              |          |  |          |  |  |  |  |  |  |  |  |
|              | 55             |              | -        |  |          |  |  |  |  |  |  |  |  |
|              | 56             |              |          |  |          |  |  |  |  |  |  |  |  |
|              | 57             |              |          |  |          |  |  |  |  |  |  |  |  |
|              | 58<br>59       |              |          |  |          |  |  |  |  |  |  |  |  |
|              | 59             |              |          |  |          |  |  |  |  |  |  |  |  |
|              | 60             |              |          |  |          |  |  |  |  |  |  |  |  |
|              | 61             |              | _        |  |          |  |  |  |  |  |  |  |  |
|              | 62             |              |          |  |          |  |  |  |  |  |  |  |  |
| -            | 63             | Н            |          |  |          | $\Box$   |  |  | $\vdash$   |  |  |  |  |
|              | 64             | Н            |          | Н  | $\vdash$ | Н  | $\vdash$   |  | $\vdash$   |  |  |  |  |
| -            | 65             | Н            |          |  | _        |  |  |  |  |  |  |  |  |
| <b> </b>     | 66             | -            |          |  | $\vdash$ | H  |  |  |  |  |  |  |  |
| -            | 67             | Н            |          | _  | -        |  |  |  |  |  |  |  |  |
|              | 68             | $\vdash$     | -        | -  |          |  |  |  |  | _  |  |  |  |
|              | 69             | -            |          |  | -        | _  |  |  | _  | _  |  |  |  |
| -            | 70             | $\vdash$     |          | H  | -        |  |  |  | _  | -  |  |  |  |
|              | 71             | Н            |          | -  | -        |  |  |  | -  | _  |  |  |  |
|              | 71<br>72<br>73 | H            |          | -  |          | _  | $\vdash$   | _  | _  | _  |  |  |  |
|              | 73             |              |          | $\vdash$   | $\vdash$ |  | _  | _  | _  |  |  |  |  |
|              | 74             | Н            |          | _  | $\vdash$ | -  |  | М  |  | _  |  |  |  |
|              | 74<br>75       | Н            |          | -  | $\vdash$ |  | _  | $\vdash$   |  | -  |  |  |  |
|              | 76             |              |          | -  | $\vdash$ | _  |  |  |  |  |  |  |  |
|              | 76<br>77       | Н            |          | _  | $\vdash$ |  |  |  |  | _  |  |  |  |
|              | 78             | Н            |          | _  |          |  |  |  |  |  |  |  |  |
|              | 79             |              |          |  |          |  |  | _  |  |  |  |  |  |
|              | 80             | Н            |          | <del>                                     </del> | $\vdash$ |  |  | _  | _  | _  |  |  |  |
|              | 81             |              |          | $\vdash$   | -        |  |  | _  |  |  |  |  |  |
| -            | 82             | H            |          | $\vdash$   | $\vdash$ | -  |  | _  |  |  |  |  |  |
| -            | 83             | -            |          | $\vdash$   | $\vdash$ | -  |  | _  | -  | Η-   |  |  |  |
|              | 84             | $\vdash$     | _        | $\vdash$   | -        | $\vdash$   |  |  | Н  | $\vdash$   |  |  |  |
| <del> </del> | 85             | Н            | -        | $\vdash$   |          |  | $\vdash$   |  | -  |  |  |  |  |
| .            | 86             | $\vdash$     |          | $\vdash$   | $\vdash$ | $\vdash$   | -  | <del></del>                                      | $\vdash$   | -  |  |  |  |
| -            | 87             | $\vdash$     |          | <del> </del> —                                   | $\vdash$ | $\vdash$   | -  | -  | $\vdash$   | —  |  |  |  |
| -            | 88             | <del> </del> |          | $\vdash$   | $\vdash$ | H  |  | H  | $\vdash$   | -  |  |  |  |
| -            | 89             | $\vdash$     | _        | $\vdash$   | $\vdash$ | $\vdash$   | $\vdash$   | $\vdash$   | $\vdash$   | Η-   |  |  |  |
|              | 90             | -            |          | $\vdash$   | $\vdash$ | $\vdash$   | $\vdash$   | $\vdash$   | H  | ┢  |  |  |  |
| <b>-</b>     | 91             | $\vdash$     | -        | -  | -        |  | H  | $\vdash$   | <del> </del>                                     | -  |  |  |  |
| -            | 92             | -            | $\vdash$ | -  | -        | $\vdash$   | <del>                                     </del> | <del> </del>                                     | $\vdash$   | $\vdash$   |  |  |  |
|              | 93             | $\vdash$     | -        | $\vdash$   | $\vdash$ | <del>                                     </del> |  | <del>                                     </del> | $\vdash$   | -  |  |  |  |
| -            | 94             | Н            | _        | -  | $\vdash$ | $\vdash$   | H  | $\vdash$   |  | <del> </del>                                     |  |  |  |
|              | 95             | $\vdash$     | -        | $\vdash$   | $\vdash$ | H  | ┝  | $\vdash$   | <del>                                     </del> |  |  |  |  |
|              | 96             | $\vdash$     |          | $\vdash$   | ┢╌       | $\vdash$   | $\vdash$   | $\vdash$   | ┢  |  |  |  |  |
|              | 97             | H            |          | $\vdash$   | $\vdash$ |  | $\vdash$   | $\vdash$   | Т  | <del>                                     </del> |  |  |  |
| _            | 98             | $\vdash$     | $\vdash$ | $\vdash$   | $\vdash$ | $\vdash$   | $\vdash$   | ┢  | _  | Н  |  |  |  |
|              | 99             | T            |          | -  | Т        |  |  | $\vdash$   |  | Г  |  |  |  |
|              | 100            |              | $\vdash$ | T  | T        |  |  |  | $\vdash$   | Т  |  |  |  |

|          | aim   | Date     |          |          |   |          |              |          |          |                 |
|----------|---|----------|----------|----------|---|----------|--------------|----------|----------|-----------------|
| Final    | Original  |          |          |          |   |          |              |          | ,        |                 |
|          |   |          |          |          |   |          |              |          |          |                 |
|          | 101   |          |          | _        | $\vdash$  |          |              |          |          | Н               |
|          | 102   |          | -        | -        | Н   |          | -            | _        | _        | Н               |
|          | 101<br>102<br>103<br>104<br>105<br>106<br>107<br>108<br>109<br>110<br>111 | _        |          |          | $\vdash$  |          | -            |          | $\vdash$ | H               |
|          | 105   |          |          |          |   |          |              | _        |          | H               |
|          | 106   |          |          |          |   |          |              |          |          |                 |
|          | 107   |          |          |          |   |          |              |          |          |                 |
|          | 108   |          |          |          |   |          |              |          | <u> </u> | Щ               |
|          | 109   |          | _        |          | Ш   | <u> </u> |              |          | <u> </u> | Щ               |
|          | 110   | -        | _        | _        | _   |          |              |          | <u> </u> | $\vdash\dashv$  |
|          | 111   |          | <u> </u> | -        |   |          | _            |          | -        | Н               |
|          | 112   | $\vdash$ | ⊢        | $\vdash$ | H   | H        | H            |          | $\vdash$ | $\vdash$        |
|          | 113<br>114<br>115<br>116<br>117<br>118<br>119                             | -        |          | $\vdash$ | -   |          |              | -        | $\vdash$ | $\vdash \vdash$ |
|          | 115   |          |          |          |   |          |              | $\vdash$ | $\vdash$ | H               |
|          | 116   |          | _        |          |   |          |              |          | Г        | П               |
|          | 117   |          |          |          |   |          |              |          |          |                 |
|          | 118   |          |          |          |   |          |              |          |          |                 |
|          | 119   |          |          |          |   |          |              |          |          |                 |
|          | 120   | L_       | <u> </u> | _        |   | L        | <u> </u>     |          |          | Щ               |
|          | 121   | <u> </u> | _        | _        | L   |          | <u> </u>     | _        | ┡        | $\vdash$        |
|          | 122   |          | <u> </u> | ├—       | $\vdash$  | -        | -            | _        | ⊢        | Н               |
|          | 123   | ┢        | ┝        | -        | $\vdash$  |          | -            | _        | ⊢        | Н               |
|          | 125   |          | $\vdash$ | -        | -   |          | $\vdash$     |          | -        | Н               |
|          | 126   | _        | $\vdash$ |          | $\vdash$  |          |              | -        | $\vdash$ | Н               |
|          | 127   | <u> </u> |          | $\vdash$ |   |          |              |          | Г        | П               |
|          | 121<br>122<br>123<br>124<br>125<br>126<br>127<br>128<br>129<br>130        |          |          |          |   |          |              |          |          |                 |
|          | 129   |          |          |          |   |          |              |          |          |                 |
|          | 130   |          | L        | _        | $ldsymbol{ld}}}}}}$ | <u> </u> | _            | _        | L        | Ш               |
|          | 131   | ·        |          | <u> </u> |   | _        |              |          | _        | Ш               |
|          | 132   | <u> </u> | ┝        | ┝        | -   |          | ┝            |          | -        | <u> </u>        |
|          | 133   | ⊢        | ┝        | $\vdash$ | -   | ⊢        | <del> </del> | ┝        | -        | Н               |
|          | 132<br>133<br>134<br>135<br>136   | $\vdash$ | -        | $\vdash$ | H   |          | -            |          |          | Н               |
|          | 136   |          | <b>-</b> |          | -   | $\vdash$ |              | -        |          | Н               |
|          | 137   |          | ┢        | $\vdash$ |   |          |              | -        | $\vdash$ | П               |
|          | 137<br>138<br>139   |          |          |          |   |          |              |          |          |                 |
|          | 139   |          |          |          |   |          |              |          |          |                 |
|          | 140   |          |          |          |   |          |              |          |          |                 |
|          | 141   | _        | _        | ــــ     | $ldsymbol{ldsymbol{ldsymbol{eta}}}$   | _        | _            | L        | _        | Ш               |
|          | 142   | <u> </u> | _        | <u> </u> | ļ   | _        | $\vdash$     | <u> </u> | <u> </u> | Ш               |
|          | 143   |          | _        | <u> </u> | ├   | ⊢        | <u> </u>     | <u> </u> | $\vdash$ | H               |
|          | 144   | H        | $\vdash$ | -        | -   | -        | -            | $\vdash$ | -        | $\vdash$        |
|          | 146   | $\vdash$ | $\vdash$ | $\vdash$ | $\vdash$  | $\vdash$ | $\vdash$     | ┝        | $\vdash$ | $\vdash$        |
|          | 147   | $\vdash$ | -        | $\vdash$ | -   | $\vdash$ | $\vdash$     | $\vdash$ | $\vdash$ | $\vdash$        |
| <u> </u> | 148   | 一        | _        | $\vdash$ | 1   |          | Н            | $\vdash$ | $\vdash$ | $\vdash$        |
|          | 149   | Г        | Г        | T        |   | T        | Г            | $\vdash$ | T        | П               |
|          | 150   |          |          |          |   |          |              |          |          |                 |